EXHIBIT H

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UNITED STATES DISTRICT COURT

DISTRICT OF NEVADA

APPLICATIONS IN INTERNET TIME, LLC,

Plaintiff,

v.

SALESFORCE.COM, INC.,

Defendant.

Case No. 3:13-CV-00628-RCJ-VPC

REPLY DECLARATION OF CRAIG ROSENBERG RE CLAIM CONSTRUCTION

I, Craig Rosenberg, hereby declare, affirm, and state the following:

1. The facts set forth below are known to me personally and I have firsthand knowledge of them.

2. I make this Declaration in support of Plaintiff Applications in Internet Time, LLC's ("AIT") proposed claim constructions in the above-captioned matter.

3. I have reviewed U.S. Patent No. 7,356,482 (the '482 patent) and U.S. Patent No. 8,484,111 (the '111 patent) as well as their file histories. Both patents-in-suit are titled "Integrated Change Management Unit" and share a similar specification.

4. I understand that the claims of a patent define the scope of an invention, whereas the specification of the patent may disclose specific embodiments of the invention. I further understand that it is improper and impermissible to interpret or construe additional limitations to a claim when those limitations are not present in the language of the claim.

I. The Patents-in-Suit

5. The patents-in-suit disclose and claim systems and methods for automating the software modification process. To briefly summarize, a claimed system involves at least four layers: a first layer, a second layer, a third layer, and a change management. ('482 patents at 32:15-29; 34:57-67. '111 patent at 33:23-34:8.) More specifically, the first layer contains information about aspects unique to a particular application; the second layer contains information about aspects common to a variety of applications; the third layer generates the functionality and user interface of a particular application based on the information from the first and second layers; and the change management layer automatically detects changes that affect a particular application. The invention claimed in the patents-in-suit relate to a software modification process achieved through these four layers.

6. Dr. Bederson contends that the patents-in-suit generally relate to integrated information management because under the "Field of the Invention" section, the patents-in-suit state, "This invention relates to the integrated management of information affected by regulatory changes, such as changes in environmental, health and safety laws, and non-regulatory changes."

(Declaration of Benjamin B. Bederson, §19. '482 patent at 1:5-8. '111 patent at 1:20-23.)

7. However, the "Field of the Invention" section is part of the specifications of the patents-in-suit and does not define the scope of the claimed invention. The claims, and not the specifications, of the patents-in-suit define the scope of the invention. As such, the management of the type of information affected by regulatory and non-regulatory changes is merely one of the embodiments, and not the only embodiment, of the invention of the patents-in-suit.

8. The scope of the invention of the patents-in-suit is much broader than simply Information management. For example, the independent claims of the '482 patent recite generating the functionality and user interface elements of an application and automatically detecting changes that affect an application. ('482 patent at 32:23-28; 33:48-53.) The independent claims of the '111 patent recite generating the functionality and user interface elements of an application, distributing the functionality and user interface elements to a user system, and automatically detecting changes that affect specific information. ('111 patent at 32:1-13; 32:47-58; 33:29-34:8.) All of these go beyond mere information management.

9. I have previously stated that the invention of the patents-in-suit enables "individuals with knowledge of business processes, rather than only computer programmers, to have responsibility for application development with a simple and efficient metadata-driven application platform." Dr. Bederson objects to my characterization of the invention because I have provided "no explicit support for this assertion." (Declaration of Benjamin B. Bederson, §46.)

10. The patents-in-suit state, "The system: provides one or more databases that contain information on operations and requirements concerning an activity or area of business; receives information on regulatory and non-regulatory changes that affect operations of the business; converts these changes into changes in data entry forms, data processing and analysis procedures, and presentation (by printing, electronic display and/or distribution) of data processing and analysis results to ***selected recipients, without requiring the services of one or more programmers*** to re-key and/or reformat the items affected by the change; and implements receipt of change information and dissemination of data processing and analysis results using the facilities of the

Internet." ('482 and '111 patents at Abstract. Emphasis added.)

11. The patents-in-suite further state, "The invention provides an integrated system for managing data that is, or can be, constantly changing, because of changes in regulations, in the business environment, in technology and in any other factor that materially affects operations and/or information management requirements of a particular business. ***Without an integrated method for automatically handling such changes, a developer or user of software that tracks business operations must continually rewrite part or all of the software*** in order to accurately and fully reflect these changes, usually at great expense and effort and with little hope for relief." ('482 patent at 8:66-9:9. '111 patent at 9:4-14. Emphasis added.)

12. The patents-in-suit disclose a Java data management layer and states, "The Java data management layer of the system provides a graphical user interface for both the metadata layer and the business content layer, which *allows a web browser user to communicate with the metadata and business content layers* on a server from anywhere in the world." ('482 patent at 15:5-10. '111 patent at 15:8-12. Emphasis added.) In addition, the patents-in-suit state, "The end user's system may be (re)configured without programming and may be maintained without programming." ('482 patent at 15:14-16. '111 patent at 15:16-18.)

13. These passages clearly indicate that without the invention of the patents-in-suit, software programmers need to oversee the application environment and continually handle the changes by re-keying and/or reformatting the items affected by the changes. On the other hand, with the invention of the patents-in-suit, information is represented and stored as metadata, and end users (*i.e.*, not necessarily software programmers) manage changes to the information by making changes to the corresponding metadata through the graphical user interface provided by the Java data management layer.

14. With respect to the changes to the information, Dr. Bederson prefers to limit the changes to specific types of changes affecting a business because "the patents-in-suit focus particularly on the detection of changes to regulatory, technologic, and social requirements that affect a business." (Declaration of Benjamin B. Bederson, §47.) It should be noted that, the

patents-in-suit explicitly state that the changes to the information include both *regulatory and non-regulatory* changes. ('482 patent at 1:5-8. '111 patent at 1:20-23.) Moreover, the independent claims of the '482 patent recite changes that affect an application, and the independent claims of the '111 patent recite changes occurred to information associated with an application. ('482 patent at 32:28; 33:52-53; 34:66-67. '111 patent at 32:11-13; 32:55-58; 34:6-8.) The plain language of the independent claims of the patents-in-suit disagrees with Dr. Bederson's characterization of the changes in question. The independent claims recite changes that affect *an application*. On the other hand, Dr. Bederson prefers changes that affect *a business*. Changes affecting a software application are different than those affecting a business.

15. Furthermore, the claims of the patents-in-suit do not limit the changes to any specific type of changes. The independent claims place no limitation on the specific types of changes, which means any change that affects an application is taken into consideration. Dr. Bederson, however, prefers to limit the changes only to "regulatory, technologic, and social requirements that affect a business." In addition, Dr. Bederson suggests that the changes should be limited to "regulatory, technological, or social material change in third party repositories." (Declaration of Benjamin B. Bederson, §53.) Once again, Dr. Bederson reads limitations into the claims when these limitations are not found in the language of the claims. The claim language does not require that the changes must be regulatory, technologic, and social requirements that affect a business, or that the changes must be in third party repositories.

16. Dr. Bederson further objects to my assertion that the changes in question may include bug fixes and new features that result in the modifications or updates to an application. (Declaration of Benjamin B. Bederson, §47.) A person of ordinary skill in the art knows well that fixing bugs and adding new features are common practices in the software industry and are frequently done to software applications. These are two types of non-regulatory changes. Fixing bugs or adding new features necessarily results in making modifications or updates to an application.

17. The patents-in-suit discuss specific functions and features of an application. ('482

patent at 17:3-18:13. '111 patent at 17:4-18:14.) For example, the "Report" function implements "viewing, printing and transmitting data based on pre-defined business requirements" and includes several features. ('482 patent at 19:20-46. '111 patent at 19:20-46.) Obviously, it is possible to add a new feature or fixing a bug to the "Report" function, which necessarily results in making modifications or updates to the application that includes this particular "Report" function. As another example, a user may create a new data entry form using the Form Builder function of the invention. ('482 patent at 16:35-42. '111 patent at 16:36-43.) When the user creates a new data entry form, the user adds a new feature to the application, which necessarily results in updates to the application.

18. A key advantage of the patents-in-suit is using metadata to define all aspects of an application. This enables non-programmers to make changes to an application by making changes to the metadata defining the application through a graphical user interface. ('482 patent at 15:5-16. '111 patent at 15:8-18.)

19. Conceptually, information associated with an application comes from a business content layer and a metadata layer. ('482 patent at 12:16-14:19. '111 patent at 12:19-14:21.) The business content layer "is specific to the particular business operations of interest to the user" and "includes business knowledge, logical designs, physical designs, physical structures, relationships, and data associated with a selected area of business activity." ('482 patent at 9:46-48; 12:17-20. '111 patent at 9:51-52; 12:20-23.) "The business content layer is defined by and referenced in the metadata layer." ('482 patent at 12:24-25. '111 patent at 12:27-28.) Thus, information stored in the business content layer will have attributes expressed as metadata and stored in the metadata layer.

20. The metadata layer "provides and/or defines data about *every feature* of the user interface including, without limitation, tools, worklists, data entry forms, reports, documents, processes, formulas, images, tables, views, columns, and other structures and functions." ('482 patent at 9:41-46. '111 patent at 46-51. Emphasis added.)

21. In one embodiment, the metadata layer is implemented using Oracle or a similar

(e.g., relational) database system. ('482 patent at 12:31-32. '111 patent 12:36-37.) Metadata tables in the metadata layer are used to store the metadata. ('482 patent at 12:53-54. '111 patent at 12:58-59.) Again, this metadata represents the information from the business content layer and the metadata layer. The patents-in-suit discuss many specific metadata tables for storing specific types of metadata. For example, the GreenSuite Image table stores application images; the View Business Area table stores information about business area Views; the View group table stores information about group Views; the group module table stores the modules accessible by user groups; the report group table stores details for the report group; the report trigger table stores the triggers specified for reports; the module formula table stores the formulas used by the modules; the related module table stores the links between modules; the calculation profile variable table stores the calculation profile variables; the constraint column table stores individual data elements for the business rules; the constraint table stores the business rules defined at the database level for every table in the application; the column allowable value table stores the business rules at a data element level; the autofill table stores the automatic data transfer setup; the arc column table stores data elements that are part of every usually exclusive relationship; the arc table stores the mutually exclusive relationships; the lookup table stores the lookup definitions for every child table; the object table stores the names of the database objects; the about table stores versions of, and copyright information concerning, the system; the datatype table stores the datatype definitions; the dependency tree table stores the application and database hierarchy(ies); and the color table stores the color definitions for use in various tools. ('482 patent at 12:55-14:19. '111 patent at 12:59-14:21.)

22. Dr. Bederson contends that the patents-in-suit do not support two layers of metadata: the first layer including metadata that defines aspects unique to a particular application, and the second layer including metadata that defines aspects common to a variety of applications. (Declaration of Benjamin B. Bederson, §51.) Dr. Bederson is confused about the meaning of the word "type" in connection with metadata because Dr. Bederson focuses on the implementation details of specific embodiments disclosed in the specification.

23. On the one hand, the patents-in-suit discuss specific metadata tables in a relational database of the metadata layer for storing specific *types* of metadata (e.g., application images, definition of business areas, menu titles, formulas, etc.) However, these are given merely as examples in one embodiment of the invention. A different embodiment or implementation of the invention may well use a different method to store the metadata, such as different tables in a relational database or a different type of data storage system.

24. On the other hand, the independent claims of the patents-in-suit recite, at a higher conceptual level, a first layer containing information about aspects unique to a particular application, and a second layer containing information about aspects common to a variety of applications. ('482 patent at 32:15-22; 33:39-44; 34:57-62. '111 patent at 31:62-67; 32:41-46; 33:23-28.) There is nothing in the specification and Dr. Bederson provides no other technically sound justification for requiring that the metadata layer may not be further subgrouped. ('482 patent at 9:41-48. '111 patent at 9:46-52.)

25. Dr. Bederson further contends that my assertion that the data dictionary works with both the unique metadata and the common metadata is incorrect. (Declaration of Benjamin B. Bederson, §52.) Dr. Bederson is incorrect. Since the data dictionary "describes or defines the data elements of the application system and the business content layer and how a data element is recorded and managed at the database management system (DBMS) level," the data dictionary necessarily works in connection with both the unique metadata and the common metadata. ('482 patent at 12:32-41. '111 patent 12:37-45.)

26. Dr. Bederson claims that changes that affect an application are not changes to the metadata defining aspects of the application. However, as I have explained above, all aspects of an application are represented as and defined using metadata. Consequently, any change that affects an application necessarily is a change to the metadata representing and defining the application.

II. "automatically detecting"

Claim Term or Phrase	**AIT's Proposed Construction**	**Salesforce's Proposed Construction**
"automatically	Detect[ing] without direct	Indefinite, or in the

detect[ing]" ('482 claims 1, 21) ('111 claim 13)	human intervention	alternative, requiring at least "detect[ing] without any intervention by a human operator through the use of one or more intelligent agents"

27. I disagree with Dr. Bederson's position that the term "automatically" requires absolutely no human intervention, direct or indirect. (Declaration of Benjamin B. Bederson, §78.) It is common sense that a computer-implemented process cannot function on its own without *any* human intervention. At the very least, it requires a human operator to initiate/start the process before the machine can perform any additional functions according to its programming.

28. In connection with the change management layer, the patents-in-suit disclose that a user may *configure* the system and *pre-define* rules to be applied to the detected changes, and a user may also *manually* decide whether to accept, act upon, or ignore information concerning the detected changes. ('482 patent at 16:26-34. '111 patent at 16:28-35.) Even in the example implementation of using intelligent agents to continually search the Web for relevant changes, a user must first start each intelligent agent and send it out onto the Web before the intelligent agent can perform its search functions. ('482 patent at 16:19-22. '111 patent at 16:21-23.) At least some human interventions (e.g., indirect) are involved during the change detection process.

29. I further disagree with Dr. Bederson's position that "automatically detecting" necessarily requires the use of one or more intelligent agents. (Declaration of Benjamin B. Bederson, §§92-93.) Dr. Bederson attempts to incorporate information disclosed in the specifications of the patents-in-suit as additional limitations to the claims.

30. The patents-in-suit disclose the use of intelligent agents that "continually search on the Web for relevant changes in a selected business area." ('482 patent at 16:21-22. '111 patent at 16:22-23.) Dr. Bederson asserts that the intelligent agents "are core component of the invention" because the patents-in-suit do not refer to the use of intelligent agents as "an embodiment" and depict the intelligent agents in Figures 1 and 2. (Declaration of Benjamin B. Bederson, §§94-95.) Dr. Bederson continues to ignore the well-established principle that the specification of a patent only discloses specific embodiments of an invention, while the claims of the patent defines the

scope of the invention.

31. As I have previously stated, the use of intelligent agents is merely one embodiment of the change detection mechanism. It is nothing more than an example implementation. Other methods of detecting changes may be and are considered. The independent claims of the patents-in-suit do not recite the use of intelligent agents.

32. I believe this mistaken position is connected with another mistaken position of Dr. Bederson where Dr. Bederson attempts to limit the changes being detected to "changes to regulatory, technologic, and social requirements that affect a business" only. (Declaration of Benjamin B. Bederson, §47.) However, as I have explained above, the claim language of the patents-in-suit does not limit the changes being detected to these specific types of changes as suggested by Dr. Bederson. On the contrary, the independent claims recite generally detecting changes that "affect a particular application," which means any type of changes affecting an application may be taken into consideration during change detection.

33. The intelligent agents, as disclosed in the patents-in-suit, are used to search on the Web or an internal intranet for relevant changes in a selected business area. ('482 patent at 16:18-22. '111 patent at 16:20-23.) It is important to note that an intranet is not a third-party repository and intranets may be, and frequently are, walled off from the wider Web. In addition, these intelligent agents only detect one type of changes -- namely, the changes related to a selected business area based on pre-defined rules and constraints. ('482 patent at 16:23-24. '111 patent at 16:24-25.) They are not capable of detecting all types of changes that may affect a particular application.

34. Accordingly, other mechanisms are needed for detecting other types of changes that may affect an application, such as changes not found on the Web or changes made to the metadata of an application. For example, when a user creates a new data entry form for an application, the user has made changes that affect the application. ('482 patent at 16:35-42. '111 patent at 16:36-43.) And yet, the intelligent agents are not suitable for detecting this specific change to the application. Instead, some other mechanism is needed to detect this type of changes. Therefore,

the term "automatically detecting" should not be construed as requiring "the use of one or more intelligent agents."

III. "changes that affect ..."

Claim Term or Phrase	AIT's Proposed Construction	Salesforce's Proposed Construction
"changes that affect a particular application" / "changes that affect an application" ('482 claims 1, 21)	"changes to an application's metadata"	"modifications to regulatory, technological, or social requirements stored in third-party repositories that affect an application"
"changes that affect the information in the first portion of the server or the information in the second portion of the server" ('111 claim 13)	"changes to an application's metadata"	"modifications to regulatory, technological, or social requirements stored in a third-party repository that affect information about unique aspects of a particular application or functions common to various applications"

35. The parties have two related disputes as to the "changes that affect ..." limitation. In both cases, Dr. Bederson suggests that the source of the changes in question should be "one step removed from the claimed system, not incorporated within it." (Declaration of Benjamin B. Bederson, §102.) I disagree with Dr. Bederson's position and believe that it is incomplete to consider only sources of changes external to the claimed system while ignoring sources of changes internal to the claimed system.

36. As I have explained above, the claim language of the patents-in-suit does not limit the changes being detected specifically to "regulatory, technological and/or social changes" that affect a business, as Dr. Bederson suggests. (Declaration of Benjamin B. Bederson, §103.) Nor does the claim language limit the changes to come from the Internet or third party repositories. (Declaration of Benjamin B. Bederson, §104.) The patents-in-suit discuss the Internet as only one source of information on regulatory changes, which discloses that there are other sources of information as well. ('482 patent at 10:24-25. '111 patent at 10:28-29.)

37. More importantly, the independent claims recite detecting changes that affect a

particular application, which means *any type* of changes coming from *any source* affecting an application may be taken into consideration. Changes from sources external to the claimed system can affect an application. Changes from sources internal to the claimed system can also affect an application.

38. Regulatory, technological, or social changes on the Internet are some, but not all, of the changes that can affect an application. For example, when a user creates a new data entry form for an application, the user has made a change that affects the application. ('482 patent at 16:35-42. '111 patent at 16:36-43.) Dr. Bederson may consider this specific change as one incorporated within the claimed system -- that is, a change from a source internal to the claimed system. Nevertheless, this type of changes definitely affects the application, and is taken into consideration by the claims of the patents-in-suit.

39. There are many types of changes that can affect an application. Correspondingly, there are many different mechanisms for detecting different types of changes. It is impractical, if not impossible, for the specifications of the patents-in-suit to address and discuss all possible types of changes that can affect an application. Instead, the specifications only disclose specific examples of changes that are capable of affecting an application in connection with specific embodiments of the invention. For example, the specifications of the patents-in-suit discuss regulatory changes and the use of one or more intelligent agents to detect such type of changes. ('482 patent at 16:19-23. '111 patent at 16:20-24.) However, this is only one example type of the changes that can affect an application. It is certainly not the only type of changes that can affect an application.

40. Dr. Bederson points to Fig. 1 of the patents-in-suit as evidence indicating that (1) the changes are those identified on the Internet; and (2) the change management layer does not have access to an application's metadata. (Declaration of Benjamin B. Bederson, §§114-115.) However, Fig. 1 of the patents-in-suit illustrates one specific embodiment of the invention. It is not the only embodiments of the invention. A figure in a patent does not define the scope of the invention of the patent.

41. Dr. Bederson states, "Under AIT's proposed construction, a user could, in response to a regulatory change that the user manually detected by reviewing the federal register, reprogram the claimed first and second layers to reflect this change in regulation." (Declaration of Benjamin B. Bederson, §119.) Dr. Bederson further suggests that AIT's proposed construction would defeat the purpose of the invention and render superfluous the claimed change management layer/fourth portion of the server. Dr. Bederson is incorrect. For example, in taking this position, Dr. Bederson ignores a scenario described in AIT's infringement contentions.

42. It is common practice in software development to have multiple versions of the same software application exist concurrently, while each version of the application may serve a different purpose. For example, there may be a deployed version of the application publically available for use by the end users. At the same time, there may be a developer version of the same application for use only by the developers. In Salesforce's system, the developer version of an application is called a "developer sandbox."

43. In the scenario described by Dr. Bederson, a developer user can, in response to a regulatory change that the developer user has manually detected by reviewing the federal register, update/modify the first and second layers of the developer version of the application to reflect this change in regulation. When the update/modification is completed and ready to be deployed, the claimed change management layer/fourth portion of the server automatically detects what changes have been made to the first and second layers of the developer version of the application so that the same changes can be similarly incorporated into the first and second layers of the deploying version of the application. In this case, the claimed change management layer/fourth portion of the server is not superfluous since it is required in order to migrate the changes made to the first and second layers of the developer version of the application to the first and second layers of the deployed version of the application.

44. Since all aspects of an application are defined as metadata, a change that affects the application shall eventually be reflected as corresponding change or changes to the application's metadata. ('482 patent at 9:41-46, 10:15-20. '111 patent at 9:46-51, 10:19-24). Therefore, it is

logical to construe "changes that affect" an application as changes to that application's metadata.

IV. Dynamic Generation

Claim Term or Phrase	AIT's Proposed Construction	Salesforce's Proposed Construction
"dynamically [re-]generate[d, ing]" ('482 claims 1, 21) ('111 claim 13)	"generate or update when needed"	Indefinite, or in the alternative requiring at least "generate [both a functionality and a user interface] immediately and concurrently without any modification of software by a user"

45. The independent claims of the patents-in-suit recite that an application is dynamically generated or regenerated when a client computer connects to a server computer. ('482 patent at 32:32-34; 33:56-58; 35:1-3. '111 patent at 32:1-4; 32:47-50; 33:29-34:4.) It is clear from the context of the claim language that "when needed" means when a client computer connects to a server computer. The preferred embodiment in the specification is consistent with AIT's construction in its disclosure of a "Java data management layer and thus what the end user sees is defined only by metadata and ***is generated as needed*** by a single program that interprets what a form will look like." ('482 patent at 15:26-29. '111 patent at 15:28-30.)

46. The claim language is silent on whether user intervention is permitted when an application is dynamically generated or regenerated. The claims of the patents-in-suit only recite that the application is generated or regenerated based on data retrieved from the first and second layers -- that is, based on "information about the unique aspects of a particular application" and "information about the user interface and functions common to a variety of applications." ('482 patent at 32:15-26; 33:39-51; 34:57-65. '111 patent at 31:62-32:7; 32:41-52; 33:23-34.)

47. Salesforce's proposed construction attempts to add the limitation "without any modification of software by a user." Neither the claim language nor the specifications of the patents-in-suit disclose or even suggest such a restriction when an application is dynamically generated or regenerated.

V. "layer" / "portion of the server" or "portion"

Claim Term or Phrase	AIT's Proposed Construction	Salesforce's Proposed Construction
"layer[s]" ('482 claims 1, 3, 5, 10, 20, 21, 23, 25, 30, 40)	"a set of functionally or logically related software components"	Indefinite, or in the alternative, requiring at least "a group of data and/or functions that is separate and distinct from other such groups"
"portion" / "portion of the server" ('111 claims 13-17)	"a functionally or logically related subset of one or more server computers"	Indefinite, or in the alternative, requiring at least "a subset of one server computer separate and distinct from other subsets"

48. Dr. Bederson stresses the point that layers are isolated from one another in order to support Salesforce's proposed construction that one layer is "separate and distinct" from other layers. (Declaration of Benjamin B. Bederson, §130.) And yet, Dr. Bederson ignores the claims of the patents-in-suit, which suggest that the individual layers do communicate with each other. For example, the third layer retrieves data from the first and second layers in order to generate or regenerate an application. ('482 patent at 32:24-25; 33:47-49; 34:63-65.) Similarly, the third portion of a server generates an application based on information from the first and second portions of the server. ('111 patent at 33:29-34.) Clearly, the third layer must be able to communicate with the first and second layers in order to retrieve data from the first and second layers. Similarly, the third portion of the server must be able to communicate with the first and second portions of the server in order to use information from the first and second portions.

49. The independent claims of the patents-in-suit recite a first layer or a first portion of a server containing information about the unique aspects of a particular application and a second layer or a second portion of the server containing information about the user interface and functions common to a variety of applications. ('482 patent at 32:15-22; 33:39-43; 34:57-62. '111 patent at 33:23-28.) These are *conceptual* separations, not *physical* separations.

50. Information from the first and second layers or portions are represented and stored as metadata. As I have explained above, the patents-in-suit disclose a metadata layer and a business content layer. ('482 patent at 12:16-14:19. '111 patent at 12:19-14:21.) The business

content layer "is specific to the particular business operations of interest to the user" and "includes business knowledge, logical designs, physical designs, physical structures, relationships, and data associated with a selected area of business activity." ('482 patent at 9:46-48; 12:17-20. '111 patent at 9:51-52; 12:20-23.) "The business content layer is defined by and referenced in the metadata layer." ('482 patent at 12:24-25. '111 patent at 12:27-28.) The metadata layer "provides and/or defines data about every feature of the user interface including, without limitation, tools, worklists, data entry forms, reports, documents, processes, formulas, images, tables, views, columns, and other structures and functions." ('482 patent at 9:41-46. '111 patent at 46-51.) In one embodiment, all the information about an application is physically stored as metadata in the same database of the metadata layer. There is no *physical separation* of the metadata.

VI. Unique / Common

Claim Term or Phrase	**AIT's Proposed Construction**	**Salesforce's Proposed Construction**
"information about [the] unique aspects of a particular application" / "unique aspects" ('482 claims 1, 21) ('111 claim 13)	"metadata that defines a data element or application function relating to a specific activity of a particular application"	Indefinite
"information about the user interface and functions common to a variety of applications" / "information about user interface elements and one or more functions common to various applications" ('482 claims 1, 21) ('111 claim 13)	"metadata that defines user interface elements and/or application functions common to multiple applications"	Indefinite, or in the alternative, requiring at least "information about user interface components and functions used by multiple different applications, excluding any unique aspects of those applications"

51. I disagree with Dr. Bederson's position that the patents-in-suit "provide no meaningful distinctions or boundaries as to when an aspect of an application is 'unique' or 'common,' thereby rendering the asserted claims indefinite." (Declaration of Benjamin B.

Bederson, §145.) Both "unique" and "common" are well-understood words so that it is unnecessary to define them separately. One can expect that these words be given their plain and ordinary meaning.

52. It is important to understand that unique and common are a conceptual distinction, not a physical distinction. Conceptually, there is metadata defining aspects unique to a particular application, and there is metadata defining aspects common to a variety of applications. Physically, the unique and common metadata may be stored in the same database or layer or in different databases or layers. The physical location where the unique and common metadata is stored is nothing more than an implementation detail and is irrelevant to the claim construction.

VII. "business content database"

Claim Term or Phrase	**AIT's Proposed Construction**	**Salesforce's Proposed Construction**
"business content database" ('482 claims 3, 23)	"a data store containing data specific to particular business operations"	Indefinite

53. Dr. Bederson appears to confuse "business content database" with information about the unique aspects of a particular application and information about the user interface and functions common to a variety of applications. (Declaration of Benjamin B. Bederson, §§149-150.) The patents-in-suit disclose that the business content layer "may be characterized as a business content database." ('482 patent at 12:28-29. '111 patent at 12:31-32.) The patents-in-suit further disclose that the business content layer "is specific to the particular business operations of interest to the user" and "includes business knowledge, logical designs, physical designs, physical structures, relationships, and data associated with a selected area of business activity." ('482 patent at 9:46-48; 12:17-20. '111 patent at 9:51-52; 12:20-21.) Therefore, it is reasonable to conclude that the business content database contains information about "business knowledge, logical designs, physical designs, physical structures, relationships, and data associated with a selected area of business activity." Note that here the information is about a *selected area of business activity*. The patents-in-suit do not suggest that such information must be unique to a particular application or common to multiple applications.

54. I disagree with Salesforce's argument that the term "business content database" is indefinite. In addition, I also disagree with Salesforce's contention that one of skill in the art would not be able to determine if a set of metadata that was associated with the business content database was common or unique. By examining claim 23 of the '482 patent, which is dependent on claim 21, the patent makes it very clear that, "the first layer comprises a business content database having data about one or more different predetermined business applications" ('482 patent at 33:65-67). In examining the first limitation of claim 21, the claim from which claim 23 depends, the patent teaches "a first layer containing information about the unique aspects of a particular application" ('482 patent at 33:39-40), and as taught in the second limitation, "a second layer containing information about the user interface and functions common to a variety of applications" ('482 patent at 33:41-43). In this manner, the patent clearly explains that *the business content database is part of the first layer and the first layer contains information about the unique aspects of a particular application*. For at least these reasons, the term "business content database" is not indefinite and there is no uncertainty regarding if the business content database is common or unique.

VIII. "logical design" / "physical design" / "physical structure"

Claim Term or Phrase	**AIT's Proposed Construction**	**Salesforce's Proposed Construction**
"logical designs" ('482 claims 4, 24) ('111 claim 15)	"an abstract representation of the data flows, inputs, and outputs of an application"	"an arrangement of data in a series of logical relationships referred to as entities or attributes"
"physical designs" ('482 claims 4, 24) ('111 claim 15)	"the input and output processes of an application"	"description of a physical database including tables and constraints"
"physical structures" ('482 claims 4, 24) ('111 claim 15)	"the components, their relationships and arrangements, that form an application"	"structure of a database that can be seen and operated on by the operating system, such as the physical files stored on a disk"

55. I agree with Dr. Bederson that the parties' *principal* dispute with respect to these three claim terms lies in whether these terms "describe attributes of databases instantiated by an

application (Salesforce's proposed construction) or attributes of the application itself (AIT's proposed construction.)" (Declaration of Benjamin B. Bederson, §152.) However, Dr. Bederson is erroneous to suggest that "the claim language, specification, and pertinent extrinsic evidence confirm that these terms describe the design and structure of *databases instantiated* by an application." (*Id*. Emphasis added.)

56. As I have previously explained, Claims 3 and 23 of the '482 patent, upon which claims 4 and 24 depend, respectively, recite "a business content database having data about one or more different predetermined business applications." ('482 patent at 32:42-43, 33:66-67.) It is clear that the business content database stores *data about the business applications*. Claim 4 and 24 of the '482 patent then recite that *the data about the business applications* "further comprises one or more of business knowledge, logical designs, physical designs, physical structures and relationships associated with the predetermined business application." ('482 patent at 32:44-48, 34:1-5.) It is further clear that the data stored in the business content database may include business knowledge, logical designs, physical designs, physical structures and relationships *about the business applications*. The claim language is unambiguous that the logical designs, physical designs, and physical structures are attributes of the *business applications themselves*, and not of the databases instantiated by a business application.

57. Similarly, claim 14 of the '111 patent, upon which claim 15 depends, recite "the information of the first portion of the server includes information associated with one or more predetermined business applications." ('111 patent at 34:9-11.) It is clear that the information from the first portion of the server is *information about the business applications*. Claim 15 of the '111 patent then recite the *information about the business applications* "includes at least one of business knowledge, logical designs, physical designs, physical structures, and relationships associated with one or more predetermined business applications." ('111 patent at 34:12-16.) It is further clear that the information from the first portion of the server may include business knowledge, logical designs, physical designs, physical structures and relationships about *the business applications*. Again, the claim language is unambiguous that the logical designs,

physical designs, and physical structures are attributes of the *business applications themselves*, and not of the databases instantiated by a business application.

58. This interpretation is supported by the specification of the patents-in-suit, which state that the business content layer "includes business knowledge, logical designs, physical designs, physical structures, relationships, and data *associated with a selected area of business activity*." ('482 patent at 12:16-20. '111 patent at 12:20-23. Emphasis added.) The business content layer is characterized as a business content database and is referenced in the metadata layer. ('482 patent at 12:24-29. '111 patent at 12:27-32.) The metadata stored in the metadata layer is used to generate applications. ('482 patent at 9:49-61, 15:10-49. '111 patent at 9:53-66, 15:13-50.) Therefore, the logical designs, physical designs, and physical structures are attributes of the applications to be generated.

59. Dr. Bederson is well aware of the dependency relationships among the claims and yet chooses to ignore the plain meaning of the claim language. (Declaration of Benjamin B. Bederson, §153.) The patents-in-suit disclose that the business content layer "is defined by and referenced in the metadata layer so that the necessary objects, tables, columns, relationships, functions, procedures and data can be read and updated by the Java data management layer." ('482 patent at 12:23-27. '111 patent at 12:27-31.) The patents-in-suit only state that the Java data management layer can *read and update* the "objects, tables, columns, relationships, functions, procedures and data" from the business content layer. This agrees with the fact that information from the business content layer, including logical designs, physical designs, and physical structures, is represented and stored as metadata in the metadata layer. The Java data management layer is able to read and update the metadata representing logical designs, physical designs, and physical structures similarly as it can read and update the metadata representing other information.

60. The patents-in-suit make no statement or suggestion that either an application or the Java management layer can *instantiate any database*. The idea of "instantiation of database" comes from Salesforce and Dr. Bederson, not the patents-in-suit. (Declaration of Benjamin B. Bederson, §§152 & 154.)

IX. "builder module"

Claim Term or Phrase	AIT's Proposed Construction	Salesforce's Proposed Construction
"builder module" ('482 claim 10)	"a software tool to construct an application or part of an application from metadata"	"self-contained unit of software capable of generating part of an application"

61. Claim 10 of the '482 patent recites that the builder module constructs "a user interface for a particular application using the second layer." ('482 patent at 33:1-4.) Since the second layer contains information about the user interface and functions common to a variety of applications and such information is represented as metadata, the builder module constructs the user interface for a particular application from the metadata defining the user interface. ('482 patent at 32:18-20.)

X. Indefiniteness

62. For reasons set forth in this and my prior declaration, I disagree with Salesforce's contention certain terms in the AIT patent claims are indefinite. I have already discussed above my opinions as to the construction of these terms and phrases and/or terms that can be found within these terms and phrases. Based on those opinions, it is further my opinion that these terms and phrases inform those of ordinary skill in the art about the scope of the inventions claimed in the asserted claims of the patents-in-suit with reasonable certainty. These terms and phrases are therefore definite.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on October 30, 2015 in Seattle, Washington.

Craig Rosenberg